

AMENDMENTS TO THE CLAIMS

WHAT IS CLAIMED IS:

1. (Original) A method of reducing the risk of glaucoma development in a patient comprising administering to said patient a compound that inhibits the hydroxymethylglutaryl-coenzyme A (HMG-CoA) reductase-catalyzed transformation of HMG-CoA to mevalonic acid, wherein said compound is administered in an amount sufficient to effect said reduction.
2. (Original) The method according to claim 1 wherein said compound is a statin.
3. (Original) The method according to claim 2 wherein said statin is selected from the group consisting of mevastatin, lovastatin, pravastatin, velostatin, simvastatin, fluvastatin, cerivastatin, dalvastatin, fluindostatin, nivistatin and atorvastatin, and prodrugs thereof.
4. (Currently Amended) The method according to claim 3 wherein said statin is selected from the group consisting of lovastatin, ~~simvastatin~~ simvastatin, fluvastatin, atorvastatin, cerivastatin and nivistatin.
5. (Original) The method according to claim 1 wherein said compound is administered orally.
6. (Original) The method according to claim 1 wherein said compound is administered directly to the eyes of said patient.
7. (Original) The method according to claim 1 further comprising administering to said patient an agent selected from the group consisting of a β -adrenergic blocking agent, carbonic anhydrase inhibitor, miotic, sympathomimetic and prostaglandin agonist.
8. (Original) The method according to claim 1 further comprising administering to said patient a selective EP₄ receptor agonist or prodrug thereof.

9. (Original) A method of treating or inhibiting the progression of glaucoma comprising administering to a patient in need thereof a compound that inhibits the HMG-CoA reductase-catalyzed transformation of HMG-CoA to mevalonic acid, wherein said compound is administered in an amount sufficient to effect said treatment or inhibition.
10. (Original) The method according to claim 9 wherein said compound is a statin.
11. (Original) The method according to claim 10 wherein said statin is selected from the group consisting of mevastatin, lovastatin, pravastatin, velostatin, simvastatin, fluvastatin, cerivastatin, dalvastatin, fluindostatin, nivistatin and atorvastatin, and prodrugs thereof.
12. (Currently Amended) The method according to claim 11 wherein said statin is selected from the group consisting of lovastatin, ~~simvastatin~~ simvastatin, fluvastatin, atorvastatin, cerivastatin and nivistatin.
13. (Original) The method according to claim 9 wherein said compound is administered orally.
14. (Original) The method according to claim 9 wherein said compound is administered directly to the eyes of said patient.
15. (Original) The method according to claim 9 further comprising administering to said patient an agent selected from the group consisting of a β -adrenergic blocking agent, carbonic anhydrase inhibitor, miotic, sympathomimetic and prostaglandin agonist.
16. (Original) The method according to claim 9 further comprising administering to said patient a selective EP₄ receptor agonist or prodrug thereof.
17. (Currently Amended) A composition comprising a compound that inhibits the HMG-CoA reductase-catalyzed transformation of ~~HMB-CoA~~ HMG-CoA to mevalonic acid and an

agent selected from the group consisting of a β -adrenergic blocking agent, carbonic anhydrase inhibitor, miotic, sympathomimetic and prostaglandin agonist.

18. (Currently Amended) A container means comprising an eye dropper wherein said container means has disposed therewithin a solution or suspension of a compound that inhibits the ~~HMB-CoA~~ HMG-CoA reductase-catalyzed transformation of HMG-CoA to mevalonic acid.

19. (Currently Amended) A method of identifying compounds that reduce the risk of glaucoma development in a patient comprising screening said compounds for the ability to inhibit the ~~HMB-CoA~~ HMG-CoA reductase-catalyzed transformation of ~~HMB-CoA~~ HMG-CoA to mevalonic acid, wherein a compound that effects said inhibition is a compound that can reduce said risk.

20. (Original) A method of identifying compounds that can be used to treat or inhibit the progression of glaucoma in a patient comprising screening said compounds for the ability to inhibit the HMG-CoA reductase-catalyzed transformation of HMG-CoA to mevalonic acid, wherein a compound that effects said inhibition is a compound that can be used to treat or inhibit the progression of glaucoma.

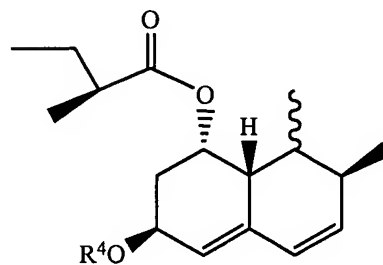
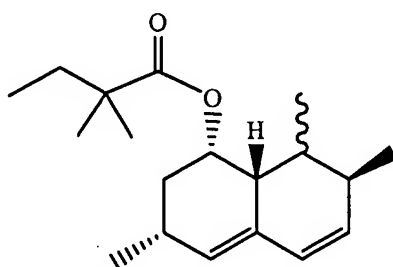
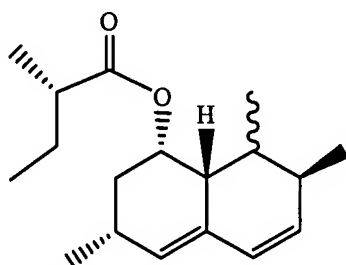
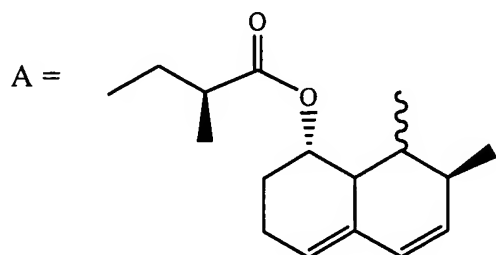
21. (New) A method for the treatment of glaucoma in a patient which comprises administering a pharmaceutically effective amount of a composition comprising at least one HMG-CoA reductase inhibitor to said patient.

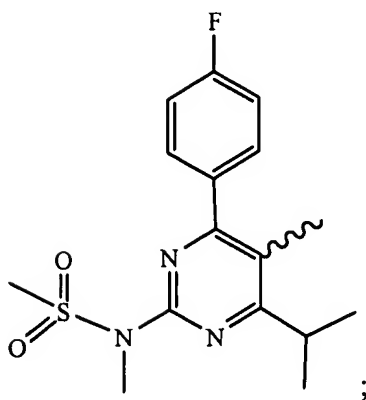
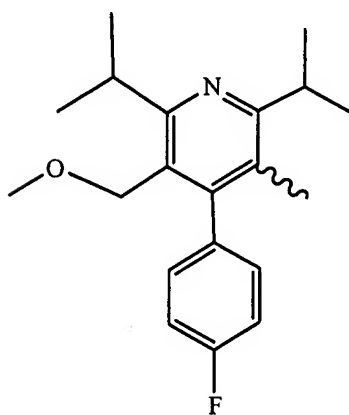
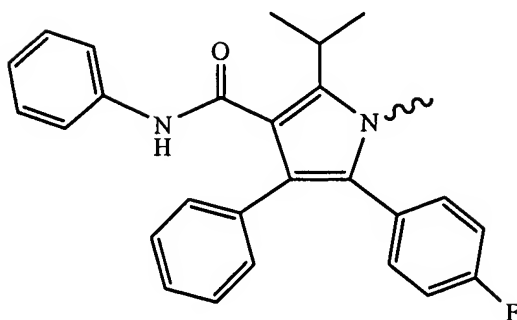
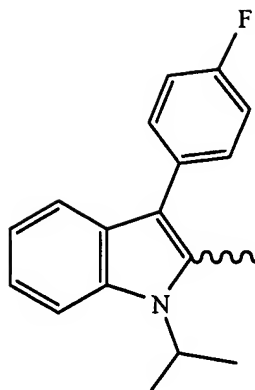
22. (New) The method of claim 21, wherein said HMG-CoA reductase inhibitor is at least one statin.

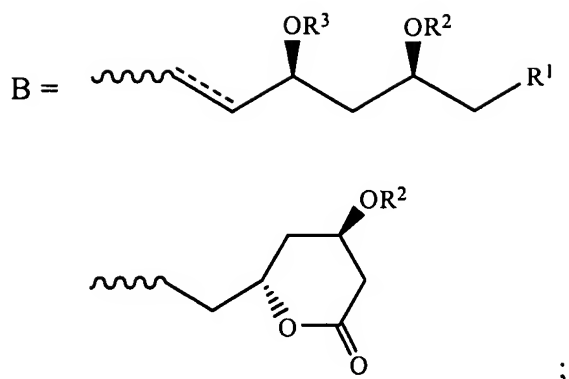
23. (New) The method of claim 22, wherein said at least one statin comprises compactin, lovastatin, simvastatin, pravastatin, mevastatin, fluvastatin, rosuvastatin, atorvastatin, pitavastatin, cervistatin, berivastatin, dalvastatin, glenvastatin, a prodrug thereof, or a derivative thereof, or a combination thereof.

24. (New) The method of claim 22, wherein said at least one statin has an RI value of 0.2 to 0.7 and said composition is administered topically to at least one eye of said patient.

25. (New) The method of claim 21, wherein said HMG-CoA reductase inhibitor has the formula A-B, wherein:







$R^1 = \text{CO}_2R$, CONR^5R^6 or CH_2OR^7 , or R^1 and R^3 form a lactone;

$R = \text{H}$ or a cationic salt moiety, or CO_2R forms a pharmaceutically acceptable ester moiety;

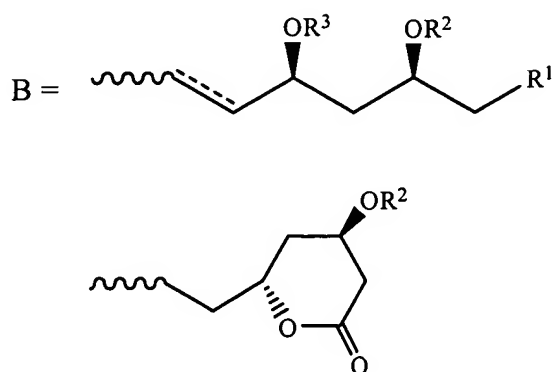
$R^2, R^3, R^4 = \text{same or different} = \text{H}, \text{C}(\text{O})R^8$ or $\text{C}(\text{O})\text{NR}^5R^6$;

$R^5, R^6 = \text{same or different} = \text{H}$ or alkyl;

$R^7 = \text{H}$ or $\text{C}(\text{O})R^8$; and

$R^8 = \text{alkyl}$.

26. (New) The method of claim 21, wherein said HMG-CoA reductase inhibitor is a HMG-CoA reductase inhibitor including one of the structures of B:



wherein:

$R^1 = \text{CO}_2R$, CONR^5R^6 or CH_2OR^7 , or R^1 and R^3 together form a lactone;

$R = \text{H}$ or a cationic salt moiety, or CO_2R forms a pharmaceutically acceptable ester moiety;

R^2, R^3 , same or different H, $C(O)R^8$ or $C(O)NR^5R^6$;

R^5, R^6 =same or different=H or alkyl;

R^7 =H or $C(O)R^8$; and

R^8 =alkyl.

27. (New) The method of claim 21, wherein said composition is administered topically to at least one eye of said patient.

28. (New) The method of claim 21, wherein said HMG-CoA reductase inhibitor comprises from about 0.05% to about 2.0% by weight of said composition.

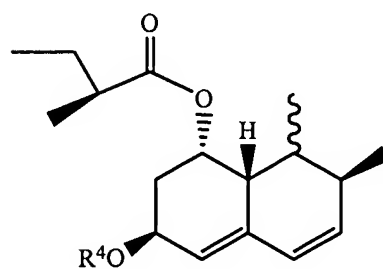
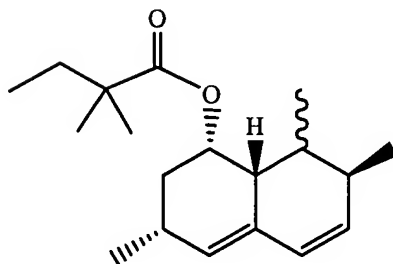
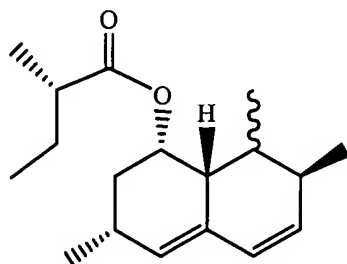
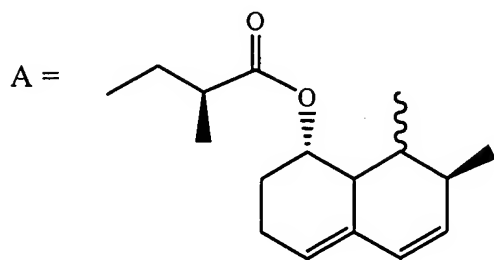
29. (New) A method of controlling normal or elevated intraocular pressure in a patient which comprises administering a pharmaceutically effective amount of a composition comprising at least one HMG-CoA reductase inhibitor to said patient.

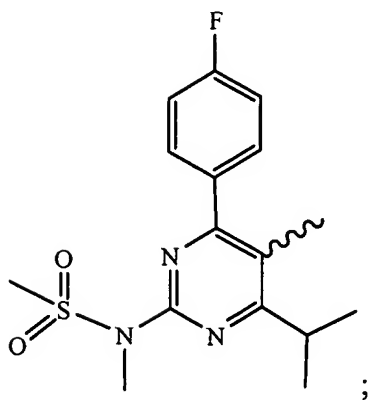
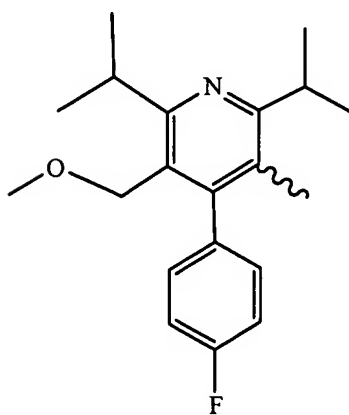
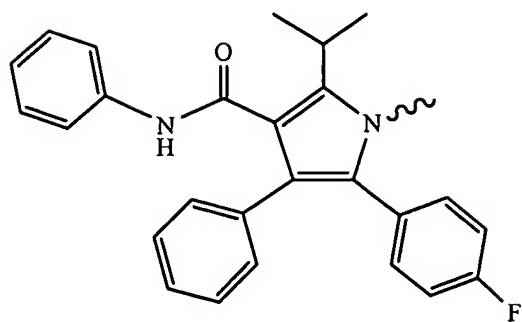
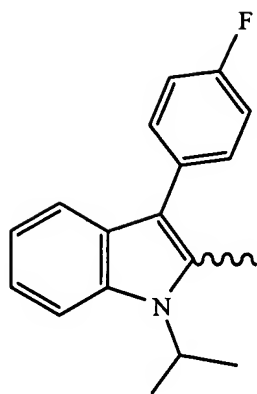
30. (New) The method of claim 29, wherein said HMG-CoA reductase inhibitor is at least one statin.

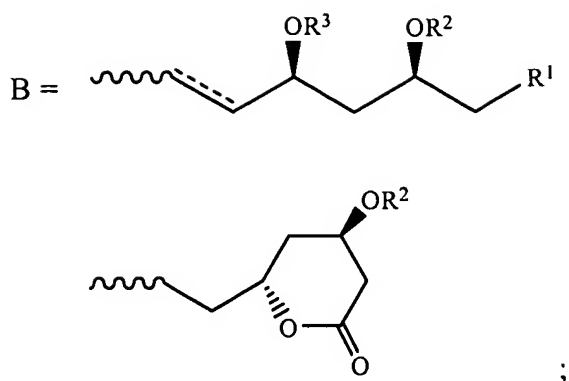
31. (New) The method of claim 30, wherein said at least one statin comprises compactin, lovastatin, simvastatin, pravastatin, mevastatin, fluvastatin, rosuvastatin, atorvastatin, pitavastatin, cervistatin, berivastatin, dalvastatin, glenvastatin, a prodrug thereof, or derivative thereof, or analog thereof, or a combination thereof.

32. (New) The method of claim 30, wherein said at least one statin has an RI value of 0.2 to 0.7 and said composition is administered topically to at least one eye of said patient.

33. (New) The method of claim 29, wherein said HMG-CoA reductase inhibitor is:







$R^1 = \text{CO}_2R$, CONR^5R^6 or CH_2OR , or R^1 and R^3 form a lactone;

$R = \text{H}$ or a cationic salt moiety, or CO_2R forms a pharmaceutically acceptable ester moiety;

$R^2, R^3, R^4 = \text{same or different} = \text{H}, \text{C}(\text{O})R^8$ or $\text{C}(\text{O})\text{NR}^5R^6$;

$R^5, R^6 = \text{same or different} = \text{H}$ or alkyl;

$R^7 = \text{H}$ or $\text{C}(\text{O})R^8$; and

$R^8 = \text{alkyl}$.

34. (New) The method of claim 29, wherein said composition is administered topically to at least one eye of said patient.

35. (New) The method of claim 29, wherein said HMG-CoA reductase inhibitor comprises from about 0.05% to about 2% by weight of said composition.

36. (New) A method to preserve the trabecular meshwork of a patient which comprises administering a pharmaceutically effective amount of a composition comprising at least one HMG-CoA reductase inhibitor to said patient.

37. (New) The method of claim 36, wherein HMG-CoA reductase inhibitor is at least one statin.

38. (New) A method to protect against ocular neurodegeneration which comprises administering a pharmaceutically effective amount of a composition comprising at least one HMG-CoA reductase inhibitor to said patient.
39. (New) The method of claim 38, wherein said HMG-CoA reductase inhibitor is at least one statin having an RI value of 0.2 to 0.7 and said composition is topically administered to at least one eye of said patient.
40. (New) A method to protect against glaucomatous retinopathy of a patient which comprises administering a pharmaceutically effective amount of a composition comprising at least one HMG-CoA reductase inhibitor to said patient.
41. (New) The method of claim 40, wherein said HMG-CoA reductase inhibitor is at least one statin having an RI value of 0.2 to 0.7 and said composition is topically administered to at least one eye of said patient.
42. (New) The method of claim 40, wherein said composition is administered intraocularly to at least one eye of said patient.
43. (New) The method of claim 21, further comprising administering, either as part of said composition or as a separate administration, a β -blocker, a carbonic anhydrase inhibitor, an $\alpha 1$ antagonist, an $\alpha 2$ agonist, a miotic, a prostaglandin analog, a neuroprotectant, or any combination thereof.
44. (New) The method of claim 21, further comprising administering, either as part of said composition or as a separate administration, at least one carbonic anhydrase inhibitor.
45. (New) The method of claim 29, further comprising administering, either as part of said composition or as a separate administration, a β -blocker, a carbonic anhydrase inhibitor, an $\alpha 1$ antagonist, an $\alpha 2$ agonist, a miotic, a prostaglandin analog, a neuroprotectant, or any combination thereof.

46. (New) The method of claim 29, further comprising administering, either as part of said composition or as a separate administration, at least one carbonic anhydrase inhibitor.

47. (New) The method of claim 38, further comprising administering, either as part of said composition or as a separate administration, β -blocker, a carbonic anhydrase inhibitor, an $\alpha 1$ antagonist, an $\alpha 2$ agonist, a miotic, a prostaglandin analog, a neuroprotectant, or any combination thereof.

48. (New) The method of claim 38, further comprising administering, either as part of said composition or as a separate administration, at least one carbonic anhydrase inhibitor.